

REMARKS

The present application was filed on April 27, 2001 with claims 1-24. In the outstanding Office Action dated September 2, 2005, the Examiner has: (i) rejected claims 1-24 under 35 U.S.C. §112, second paragraph; (ii) rejected claims 1-3, 10-15, 17-21, 23 and 24 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,317,716 to Braida et al. (hereinafter “Braida”); (iii) rejected claims 4, 5 and 16 under 35 U.S.C. §103(a) as being unpatentable over Braida, in view of U.S. Patent No. 6,256,046 to Waters et al. (hereinafter “Waters”); (iv) rejected claims 7 and 8 under §103(a) as being unpatentable over Braida, in view of U.S. Patent No. 6,580,437 to Liou et al. (hereinafter “Liou”); and (v) rejected claims 9 and 22 under §103(a) as being unpatentable over Braida, in view of U.S. Patent No. 6,250,928 to Poggio et al. (hereinafter “Poggio”), and further in view of Liou.

In this response, claims 2, 11 and 21 have been canceled without prejudice, and claims 1, 10, 13, 18 and 24 have been amended. Applicants traverse the §112 and §103(a) rejections for at least the reasons set forth below. Applicants respectfully request reconsideration of the present application in view of the above amendments and the following remarks.

Claims 1-24 stand rejected under §112, second paragraph, as being indefinite. Specifically, the Examiner contends that the term “substantially” recited in claims 1, 10, 13, 18 and 24 “is a relative term which renders the claim indefinite (present Office Action; page 2, paragraph 3). Applicants respectfully disagree with this contention and assert that it is well-settled case law that the use of the word “substantially” in a claim does not inevitably introduce fatal ambiguity into the claim. Rather, “words of degree are entirely appropriate ‘when serving reasonably to describe the claimed subject matter to those of skill in the field of invention, and to distinguish the claimed subject matter from the prior art.’” *Chemical Separation Technology Inc. v. United States*, 63 USPQ2d 11 1114, 1130 (Fed. Cl. 2002) (*citing Andrew Corp. v. Gabriel Electronics, Inc.*, 847 F.2d 819, 821 (Fed. Cir. 1988)). “[T]he term ‘substantially’ in patent claims gives rise to some definitional leeway . . . Patentees may use these terms to avoid unduly limiting the modified word. Thus the term ‘substantially’ may prevent avoidance of infringement by minor changes that do not affect the results sought and accomplished.” *C.E. Equipment Co., Inc. v. United States*, 17 Cl.Ct. 293, 299 [13 USPQ2d 1363] (1989).

The present specification does not assign any special meaning to the term “substantially,” and, as such, the phrase “substantially concurrently” as used in the context of the subject claims simply means that images of body movements are captured as nearly concurrently as possible from the one or more corresponding words in the utterance. This is clearly described in the present specification, for example, on page 5, beginning at line 19, where it states that the “facial features are ideally extracted simultaneously with the acoustic feature extraction operation . . . so that the relationship between lip movements and decoded text can be easily determined by a user” (emphasis added). Accordingly, since the use of the term “substantially” in the subject claims is not believed to render the claims indefinite to those skilled in the art, Applicants respectfully request withdrawal of the §112 rejection of claims 1-24.

Claims 1-3, 10-15, 17-21, 23 and 24 stand rejected under §102(e) as being anticipated by Braida. The Examiner contends that Braida discloses all of the elements set forth in the subject claims. While Applicants respectfully disagree with this contention, independent claim 1, as well as claims 10, 13, 18 and 24 which are of similar scope, have been amended to further clarify the respective inventions set forth therein. Specifically, claim 1 has been amended to further define the image player as repeatedly presenting “one or more image segments with the corresponding decoded word by looping on a time sequence of successive images corresponding to the decoded word.” The prior art of record, when considered either individually or in combination, fails to teach or suggest at least this additional feature of the subject claims.

The Examiner contends that Braida discloses, at column 13, line 1, to column 14, line 67, an image player that repeatedly presents one or more image segments with the corresponding decoded word by looping on a time sequence of successive images corresponding to the decoded word (present Office Action; page 7, first paragraph). Applicants respectfully disagree with this contention. In contrast to the claimed invention, Braida discloses displaying successive images of synthetic speech cues in a manner which suggests a smooth transition between successive cues. For instance, Braida, at column 13, lines 14-27, states:

After the cue image has been displayed at the current cue position for several frames, the cue image follows a linearly interpolated path to the next cue position, arriving at the start time for the next cue. The synthetic cue shape changes from the current to the next shape at a selected point along the path between the two cue positions,

hence suggesting to a viewer as a smooth motion and transition between successive cues . . . Each time the video display is to be refreshed (here, approximately every 1/30 second), the next-digital video image 38 (i.e., current frame “F”) is retrieved and overlapped with the cue image in its “proper” position and shape.

However, displaying successive images and “fading from one cue to the next” (Braida; col. 13, lines 21-22) is not analogous to looping on a time sequence of successive images corresponding to the decoded word, as explicitly required by the subject claims. The term “looping” as recited in the subject claims is intended to refer to repeatedly displaying the same set of successive images a certain number of times, such that after a last image in the set of successive images corresponding to the decoded word is displayed, a first image in the set of images is displayed again. This looping feature of the claimed invention is described in detail in the present specification, at least on page 8, line 3 to page 9, line 9.

For at least the above reasons, Applicants assert that claims 1, 10, 13, 18 and 24, as amended, are patentable over the prior art. Accordingly, favorable reconsideration and allowance of these claims are respectfully solicited.

With regard to claim 3, which depends from claim 1, claim 12, which depends from claim 10, claims 14, 15 and 17, which depend from claim 13, and claims 19, 20 and 23, which depend from claim 18, Applicants submit that these claims are also patentable over the prior art of record by virtue of their dependency from their respective base claims, which are believed to be patentable for at least the reasons set forth above. Moreover, one or more of these claims define additional patentable subject matter in their own right. For example, claims 3 and 12, and claim 14 which is of similar scope, further define the subject invention as including a delay controller for “selectively controlling a delay between an image segment and a corresponding decoded word” in the utterance. The prior art of record fails to disclose at least this additional feature of the claimed invention. The Examiner contends that Braida discloses a frame grabber (36) in FIG. 2 which is analogous to the delay controller set forth in claims 3 and 12 (present Office Action; page 7, paragraph 2). Applicants respectfully disagree with this contention.

The frame grabber taught by Braida, which the Examiner analogizes to the delay controller, serves merely to capture the analog video image signal representing the speaker’s face to digitize

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the image (Braida; col. 5, lines 42-44), and does not selectively control a delay between an image segment and a corresponding decoded word in response to a control signal, as required by the subject claims. Specifically, Braida states that “[f]rame grabber 36 samples the video signal into digital images 38 at a specified resolution and color depth and makes digital images 38 available on the system bus for transfer to the main memory of computer 12” (Braida; col. 5, lines 44-48).

For at least the reasons set forth above, claims 3, 12, 14, 15, 17, 19, 20 and 23 are believed to be patentable over the prior art of record, not merely by virtue of their dependency from their respective base claims, but also in their own right. Accordingly, favorable reconsideration and allowance of claims 3, 12, 14, 15, 17, 19, 20 and 23 are respectfully requested.

Claims 4, 5 and 16 stand rejected under §103(a) as being unpatentable over Braida in view of Waters. While disagreeing with the Examiner’s contentions that the combination of Braida and Waters discloses all of the features of these claims, Applicants assert that claims 4 and 5, which depend from claim 1, and claim 16, which depends from claim 13, are patentable over the prior art of record by virtue of their dependency from their respective base claims, which are believed to be patentable for at least the reasons set forth above. Moreover, these claims define additional patentable subject matter in their own right. Accordingly, favorable reconsideration and allowance of claims 4, 5 and 16 are respectfully solicited.

Claims 7 and 8 stand rejected under §103(a) as being unpatentable over Braida in view of Liou. Applicants assert that Braida, which is directed to automatic speech cueing, and Liou, which is directed to a system for organizing digital videos to archive and access them at different levels of abstraction (Liou; col. 2, lines 41-43), are not analogous art, and are therefore not believed to be combinable. Other than the Examiner’s statement that Braida and Liou “are from the same field of endeavors” (present Office Action; page 10, paragraph 3), there exists a lack of the necessary motivation to combine these references in the manner suggested by the Examiner, as is required in order to maintain an obviousness rejection of the subject claims. Furthermore, Applicants submit that claims 7 and 8, which depend from claim 1, are patentable over the prior art of record by virtue of their dependency from claim 1, which is believed to be patentable for at least the reasons set forth above. Moreover, these claims define additional patentable subject matter in their own right. Accordingly, favorable reconsideration and allowance of claims 7 and 8 are respectfully requested.

Claims 9 and 22 stand rejected under §103(a) as being unpatentable over Braida in view of Poggio, and further in view of Liou. Applicants further submit that claims 9 and 22, which depend from claims 1 and 18, respectively, are patentable over the prior art of record by virtue of their dependency from their respective base claims, which are believed to be patentable for at least the reasons set forth above. Moreover, while Applicants maintain the assertion that Braida and Liou are not analogous art, and are therefore not believed to be combinable, Applicants submit that Braida, Poggio and Liou, when considered in combination, fail to disclose all of the elements set forth in claims 9 and 22.

Specifically, contrary to the Examiner's contention (present Office Action; page 11, first paragraph), the combination of Braida and Poggio fails to disclose an image player displaying "each image segment in a separate window on a display in close proximity to the decoded speech text corresponding to the image segment," as explicitly required by claims 9 and 22. The Examiner relies on the disclosure in FIG. 8 and at column 10, lines 52-67 of Poggio as support for such teaching. However, Applicants assert that no such teaching exists. In contrast to the claimed invention, Poggio, in FIG. 8, merely illustrates how a new visual utterance is synthesized from respective visemes. The individual visemes are not displayed to a viewer in separate windows, but "are concatenated, or put together and played seamlessly one right after the other" as part of a video sequence in a single display window (Poggio; column 11, lines 1-4; emphasis added). Therefore, claims 9 and 22 are believed to be patentable over the prior art of record, not merely by virtue of their dependency from their respective base claims, but also in their own right. Accordingly, favorable reconsideration and allowance of claims 9 and 22 are respectfully solicited.

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In view of the foregoing, Applicants believe that pending claims 1, 3-10, 12-20 and 22-24 are in condition for allowance, and respectfully request withdrawal of the §112, §102 and §103 rejections.

Respectfully submitted,



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